Amendments to the Claims:

1. (Cancelled)

25. (New) An enhanced VSB receiver for receiving and decoding a terrestrial broadcasting signal transmitted from a VSB transmitter, the enhanced VSB receiver comprising:

a demodulator for receiving an input signal including main data and enhanced data from the VSB transmitter and converting the input signal into a base band signal, the demodulator further recovering a segment synchronizing signal and a field synchronizing signal from the base band signal;

a multiplexing information detector detecting multiplexing information from the field synchronizing signal; and

a demultiplexer for demultiplexing the base band signal into the main data and the enhanced data using the detected multiplexing information.

26. (New) The enhanced VSB receiver of claim 25, further comprising:

a symbol indicator for indicating whether each symbol included in the input signal corresponds to the main data or the enhanced data, and generating a sequence of null bits identical to a sequence of null bits previously inserted into the enhanced data by the VSB transmitter;

a slicer predictor for providing at least one of a slicer prediction signal and a prediction reliability signal by using the sequence of null bits generated from the symbol indicator; and

a channel equalizer for correcting a distorted channel in the base band signal by using the slicer prediction signal, the prediction reliability signal, and the sequence of null bits.

27. (New) The enhanced VSB receiver of claim 26, further comprising a phase tracker for correcting a phase of the channel-corrected signal by using the sequence of null bits and the slicer prediction signal.

28. (New) The enhanced VSB receiver of claim 27, further comprising a trellis decoder for decoding the phase-corrected signal by using a Viterbi decoding algorithm and the sequence of null bits.

29. (New) The enhanced VSB receiver of claim 28, further comprising:

a data deinterleaver for deinterleaving the Viterbi-decoded signal outputted from the trellis decoder;

a Reed-Solomon decoder for decoding the deinterleaved signal outputted from the data deinterleaver; and

a data derandomizer for derandomizing the Reed-Solomon-decoded signal outputted from the Reed-Solomon decoder.

30. (New) The enhanced VSB receiver of claim 29, wherein the Reed-Solomon decoder removes 20 parity bytes from the deinterleaved signal without subjecting the enhanced data to Reed-Solomon decoding.

31. (New) The enhanced VSB receiver of claim 25, further comprising a comb filter for removing an NTSC interference signal from the base band signal converted by the demodulator.

32. (New) The enhanced VSB receiver of claim 25, further comprising a supplemental VSB processor for decoding the enhanced data demultiplexed from the demultiplexer to obtain original data.

33. (New) The enhanced VSB receiver of claim 32, wherein the supplemental VSB processor comprises:

a header remover for removing header bytes from the enhanced data demultiplexed from the demultiplexer;

a null sequence remover for removing the sequence of null bits from the header-removed data; and

a Reed-Solomon decoder for subjecting the null-sequence-removed data to Reed-Solomon decoding to obtain the original data.

34. (New) The enhanced VSB receiver of claim 25, wherein the main data included in the input signal comprises MPEG data.

35. (New) The enhanced VSB receiver of claim 26, wherein the symbol indicator comprises:

a multiplexer for receiving and multiplexing an enhanced data dummy packet and a main data dummy packet and outputting as a multiplexer output signal;

a randomizer for randomizing the multiplexer output signal;

a parity inserter for inserting dummy bytes to the randomized data;

a data interleaver for interleaving an output of the parity inserter; and

a trellis coder for converting the interleaved data to symbols and outputting the converted symbols without subjecting to trellis coding.

36. (New) The enhanced VSB receiver of claim 35, wherein each symbol outputted from the trellis coder includes a bit D1, wherein if the bit D1 is at a first logic level, a corresponding symbol included in the input signal corresponds to a enhanced data symbol, and if the bit D1 is at a second logic level, the symbol corresponds to a main data symbol.

37. (New) The enhanced VSB receiver of claim 35, wherein each symbol outputted from the trellis coder includes two bits D1 and D0, wherein if the bit D1 is at a first logic level, the bit D0 represents a corresponding one of the sequence of null bits included in the enhanced data.

38. (New) An enhanced VSB receiver for receiving and decoding a terrestrial broadcasting signal transmitted from a VSB transmitter, the enhanced VSB receiver comprising:

a main VSB processor for receiving an input signal including main data and enhanced data from the VSB transmitter, processing the input signal in a reverse order of the VSB transmitter, and outputting a multiplexed data signal, wherein the main VSB processor comprises:

a demodulator for converting the input signal into a base band signal and recovering a segment synchronizing signal and a field synchronizing signal from the base band signal; and

a multiplexing information detector detecting multiplexing information from the field synchronizing signal;

a demultiplexer for demultiplexing the multiplexed data signal received from the main VSB processor into the main data and the enhanced data using the detected multiplexing information; and

a supplemental VSB processor for decoding the demultiplexed enhanced data to obtain original data, wherein a sequence of null bits are previously inserted into the enhanced data by the VSB transmitter before data transmission.

39. (New) The enhanced VSB receiver of claim 38, further comprising a symbol indicator for indicating whether each symbol included in the input signal corresponds to the main data or the enhanced data.

40. (New) The enhanced VSB receiver of claim 39, wherein the symbol indicator generates a plurality of symbols, each symbol comprising a bit D1, wherein if the bit D1 is at a first logic level, a corresponding symbol included in the input signal corresponds to a enhanced data symbol, and if the bit D1 is at a second logic level, the corresponding input symbol corresponds to a main data symbol.

41. (New) The enhanced VSB receiver of claim 39, wherein the symbol indicator generates a plurality of symbols, each symbol comprising two bits D1 and D0, wherein if the bit D1 is at a first logic level, the bit D0 represents a corresponding one of the sequence of null bits included in the enhanced data.

42. (New) The enhanced VSB receiver of claim 38, wherein the main data included in the input signal comprises MPEG data.

43. (New) The enhanced VSB receiver of claim 38, wherein the supplemental VSB processor comprises:

a header remover for removing header bytes from the enhanced data demultiplexed from the demultiplexer;

a null sequence remover for removing the sequence of null bits from the header-removed data; and

a Reed-Solomon decoder for subjecting the null-sequence-removed data to Reed-Solomon decoding to obtain the original data.

44. (New) The enhanced VSB receiver of claim 38, wherein the main VSB processor further comprises:

a symbol indicator for indicating whether each symbol included in the input signal corresponds to the main data or the enhanced data, and generating a sequence of null bits identical to a sequence of null bits previously inserted into the enhanced data by the VSB transmitter;

a slicer predictor for providing at least one of a slicer prediction signal and a prediction reliability signal by using the sequence of null bits generated from the symbol indicator;

a channel equalizer for correcting a distorted channel in the base band signal by using the slicer prediction signal, the prediction reliability signal, and the sequence of null bits;

a phase tracker for correcting a phase of the channel-corrected signal by using the sequence of null bits and the slicer prediction signal; and

a trellis decoder for decoding the phase-corrected signal by using a Viterbi decoding algorithm and the sequence of null bits.

45. (New) A method of receiving and decoding a terrestrial broadcasting signal transmitted from a VSB transmitter, the method comprising:

receiving an input signal including main data and enhanced data from the VSB transmitter;

converting the input signal into a base band signal and recovering a segment synchronizing signal and a field synchronizing signal from the base band signal;

detecting multiplexing information from the field synchronizing signal; and

demultiplexing the base band signal into the main data and the enhanced data using the detected multiplexing information.

46. (New) The method of claim 45, further comprising:

indicating whether each symbol included in the input signal corresponds to the main or enhanced data;

generating a sequence of null bits identical to a sequence of null bits previously inserted into the enhanced data by the VSB transmitter;

providing at least one of a slicer prediction signal and a prediction reliability signal by using the sequence of null bits generated; and

correcting a distorted channel in the base band signal by using the slicer prediction signal, the prediction reliability signal, and the sequence of null bits generated.

47. (New) The method of claim 46, further comprising correcting a phase of the channel-corrected signal by using the sequence of null bits and the slicer prediction signal.

48. (New) The method of claim 47, further comprising decoding the phase-corrected signal by using a Viterbi decoding algorithm and the sequence of null bits.

49. (New) The method of claim 48, further comprising:

deinterleaving the Viterbi-decoded signal;

Reed-Solomon decoding the deinterleaved signal; and

derandomizing the Reed-Solomon-decoded signal.

50. (New) The method of claim 49, wherein the Reed-Solomon decoding the deinterleaved signal comprises removing 20 parity bytes from the deinterleaved signal without subjecting the enhanced data to Reed-Solomon decoding.

51. (New) The method of claim 45, further comprising removing an NTSC interference signal from the base band signal.

52. (New) The method of claim 45, further comprising decoding the demultiplexed enhanced data to obtain the original data.

53. (New) The method of claim 52, wherein the decoding the demultiplexed enhanced data to obtain the original data comprises:

removing header bytes from the demultiplexed enhanced data;

removing the sequence of null bits included in the header-removed data; and

Reed-Solomon decoding the null-sequence-removed data to obtain the original data.

54. (New) The method of claim 45, wherein the main data included in the input signal comprises MPEG data.